

CLEAN CLAIMS AFTER PRELIMINARY AMENDMENT OF FEBRUARY 7, 2001

1. A polarizer comprising:

a multilayered structure along z-axis consisting of two or more transparent bodies which have different refractive indexes;

wherein the shape of layers which is the unit of lamination

5 of each transparent body has a regularly undulated structure

along the x-axis, is uniform along the y-axis, or has regularly or non-regularly undulated structure which is larger than the x-axis; and

lamination along the z-axis repeating the shape, and acts against the light which has a component whose incidence direction is not zero from the z-axis in the three-dimensional orthogonal coordinates (x, y, z).

2. A polarized according to claim 1, wherein the polarizer has a more refractive medium layer containing one of Si and TiO₂ as a main component and a less refractive medium layer containing SiO₂ as a main component.

3. A method for producing a polarizer comprising the steps of:

5 laminating a more refractive medium and a less refractive medium with a regularly repeating shape by a film-forming method at least partly including the dry etching on a substrate which has at least one of regularly arranged grooves or regularly

arranged linear projections or thin and long projections or thin and long grooves.

4. A method of producing a polarizer comprising the steps of:

laminating a more refractive medium which contains one of Si or TiO₂ as a main component and a less refractive medium which contains SiO₂ as a main component with regularly repeating the shape by a film-forming method at least partly including the dry etching on a substrate which has at least one of regularly arranged grooves or regularly arranged linear projections or thin and long projections or thin and long grooves.